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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/584,094	05/31/2000	Woody A. Chea	PM 258174	2409
909	7590	12/23/2003	EXAMINER	
PILLSBURY WINTHROP, LLP P.O. BOX 10500 MCLEAN, VA 22102			WILLIAMS, LAWRENCE B	
ART UNIT		PAPER NUMBER		
2634				
DATE MAILED: 12/23/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/584,094	CHEA, WOODY A.
	Examiner	Art Unit
	Lawrence B Williams	2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 31 May 2000.
- 2a) This action is FINAL.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-18 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 13-18 is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 31 May 2000 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a)  The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1-3.
- 4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, “the receiver device”, pg. 5, line 18 and the “transmitter device”, pg. 6, line 2, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### ***Claim Objections***

3. Claim 9 is objected to because of the following informalities: Examiner suggests applicant insert the word “a” between comprises and digitally.  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Isaksson et al. (US Patent 6,456,649 B1).

(1) With regard to claim 1, Isaksson et al. discloses in Fig. 22, a system comprising: a transmitter device (NU) adapted to transmit a data signal; a receiver system (NT) adapted to receive and regenerate the data signal; and a communications link (copper pair) coupled to the transmitter device and the receiver system, the data signal being susceptible to distortions of phase and amplitude during transmission across the communications link (col. 11, lines 34-61; col. 12, lines 45-47), wherein the receiver system includes a receiver device adapted to receive the potentially distorted data signal from the communications link and a processor (SC) electrically coupled to the receiver device and adapted to receive the distorted data signal from the receiver device, regenerate the data signal to compensate for the effects of the communications link on the data signal (col. 15, lines 2-5), and output the regenerated data signal (col. 24, lines 37-57).

(2) With regard to claim 2, claim 1 inherits all limitations of claim 1. Furthermore, Isaksson et al. also discloses in Fig. 4, wherein the receiver system further comprises a device driver (PGA) electrically coupled to the processor and adapted to transmit a data signal to the communications link.

(3) With regard to claim 3, Isaksson et al. also discloses in Fig. 22, the system further comprising, a transceiver system adapted to receive (UT, UN), regenerate and transmit a data signal, the transceiver system includes the transmitter device, a receiver device adapted to

receive the potentially distorted data signal from the communications link, and a processor (SC) electrically coupled to the transmitter device and the receiver device and adapted to receive the distorted data signal from the receiver device, regenerate the data signal to compensate for the effects of the communications link on the data signal (col. 15, lines 2-5), and output the regenerated data signal (col. 24, lines 37-57).

(4) With regard to claim 4, claim 1 inherits all limitations of claim 1. Furthermore, Isaksson et al. also discloses in Fig. 4, wherein the transmitter device includes a driver device (col. 8, lines 18-20).

(5) With regard to claim 5, claim 1 inherits all limitations of claim 1. Furthermore, Isaksson et al. also discloses in Fig. 4, wherein the receiver system further comprises a device driver (PGA) electrically coupled to the processor and adapted to transmit the regenerated data signal to a subscriber.

(6) With regard to claim 6, Isaksson et al. also discloses in Fig. 22, wherein the transmitter device is a subscriber transmitter device.

(7) With regard to claim 7, claim 3 inherits all limitations of claim 1. Furthermore, Isaksson et al. also discloses in Fig. 4, wherein the transceiver system further comprises a device driver electrically coupled to the processor and adapted to transmit the regenerated data signal to a central node (Fig. 1) (col. 8, lines 18-20).

(8) With regard to claim 8, claim 8 inherits all limitations of claim 1. Furthermore, Isaksson et al. also discloses in Fig. 22, the system further comprising, a transceiver system adapted to receive (UT, UN), regenerate and transmit a data signal, the transceiver system includes the transmitter device, a receiver device adapted to receive the potentially distorted data

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signal from a central node, and a processor (SC) electrically coupled to the transmitter device and the receiver device and adapted to receive the distorted data signal from the receiver device, regenerate the data signal to compensate for the effects of transmission from the central node, (col. 15, lines 2-5), and output the regenerated data signal (col. 24, lines 37-57).

(9) With regard to claim 9, claim 9 inherits all limitations of claim 1. Furthermore, Isaksson et al. also discloses wherein the data signal comprises digitally encoded data signal (col. 6, line 64- col. 7, line12).

(10) With regard to claim 10, Isaksson et al. also discloses wherein the communications link comprises at least one of unshielded twisted pair cable, coaxial cable, and fiber optic cable (col. 6, lines 10-26).

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Isaksson et al. (US Patent 6,456,649 B1) as applied to claim 1 above, in view of Fitzgerald et al. (EP 0719006 A1).

As noted above, Isaksson et al. discloses all limitations of claim 1. He does not however

disclose wherein the data signal is transmitted across the communications link at transmission rates at least as high as 44.736 Mbps.

However, Fitzgerald et al. discloses a bi-directional transceiver wherein the data signal is transmitted across the communications link at transmission rates at least as high as 44.736 Mbps (col. 2, lines 15-24).

One skilled in the art would have clearly recognized that a system wherein the data signal is transmitted across the communications link at transmission rates at least as high as 44.736 Mbps is a well-known technique introduced in many references. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to apply the method as taught by Fitzgerald et al. to the invention of Isaksson et al. to provide a transmission media for FDDI data at lower cost while maintaining the requirements of the FDDI standard (col. 2, lines 1-11).

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Isaksson et al. (US Patent 6,456,649 B1) as applied to claim 4 above, in view of Jones (Signal Processing for an ADSL High Speed Equalizer).

As noted above, Isaksson et al. discloses all limitations of claim 4. He does not however disclose wherein the communications link is at least 18,000 feet long.

However, Jones teaches a high-speed equalizer wherein the communications link is at least 18,000 feet long (abstract).

One skilled in the art would have clearly recognized that a system wherein the communications link is at least 18,000 feet long is a well-known technique introduced in many references. Therefore it would have been obvious to one of ordinary skill in the art at the time of

invention to apply the method as taught by Jones to the invention of Isaksson et al. to provide for an increased transmission distance without the use of costly repeaters.

***Allowable Subject Matter***

9. Claims 13-18 are allowed.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 703-305-6969. The examiner can normally be reached on Monday-Friday (8:00-5:00) being out of the office every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Lawrence B. Williams

lbw  
December 1, 2003



STEPHEN CHIN  
SUPERVISORY PATENT EXAMINE  
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